Attorney Docket No.: Q78933

AMENDMENT UNDER 37 C.F.R. § 1.111

Application No.: 10/581,675

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An electroconductive resin composition, comprising at least:

a multi-component polymer-type resin binder (A) comprising a dispersed phase and a continuous phase, and having a number-average particle size of dispersed phase of 0.001-2μm, and an electroconductive material (B) in the form of powder, and/or-fiber, or combination thereof;

wherein the number-average particle size of the dispersed phase in the component (A) is smaller than the number-average particle size or number-average fiber diameter of the component (B), and

wherein the multi-component polymer-type resin binder (A) has a micro-phase separation structure comprising a resin component constituting the dispersed phase and a resin component constituting the continuous phase, and

wherein the component (A) constitutes 40-2 mass%, and the component (B) constitutes 60-98 are mass%, based on the total amount of (component (A) + component (B)) of 100 mass%.

- 2. (canceled).
- 3. (canceled).

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4. (previously presented): An electroconductive resin composition according to claim 1, wherein at least one component contained in the component (A) is an elastomer component.

- 5. (previously presented): An electroconductive resin composition according to claim 1, wherein the component (A) comprises 1-99 mass% of a thermoplastic resin, and 99-1 mass% of an elastomer.
- 6. (previously presented): An electroconductive resin composition according to claim 1, wherein the component (A) comprises a composition of a polyolefin, and one or plural kinds selected from: hydrogenated styrene-butadiene rubber, styrene-ethylene-butylene-styrene block copolymer, styrene-ethylene-propylene-styrene block copolymer, crystalline olefinethylene butylene crystalline olefin block copolymer, styrene-ethylene-butylene-crystalline olefin block copolymer, styrene-iso-styrene block copolymer, styrene-butadiene-styrene block copolymer.
- 7. (previously presented): An electroconductive resin composition according to claim 1, wherein the component (A) comprises at least a polyvinylidene fluoride and a soft acrylic acid resin.
- 8. (previously presented): An electroconductive resin composition according to claim 1, wherein the component (B) comprises at least one kind selected from: metallic

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materials, carbonaceous materials, electroconductive polymers, and fillers coated with a metallic material, or metallic oxides.

- 9. (previously presented): An electroconductive resin composition according to claim 1, wherein the component (B) is a carbonaceous material including boron in an amount of 0.05-5 mass%.
- 10. (currently amended): An electroconductive resin composition according to claim 1, wherein the component (B) comprises 0.1-50 mass% of vapor-phase grown carbon fiber, and/or-carbon nanotube or combination thereof, based on the mass of the entire component (B) including the vapor-phase grown carbon fiber and/or carbon nanotube per se.
- 11. (currently amended): An electroconductive resin composition according to claim 10, wherein the vapor-phase grown carbon fiber, or carbon nanotube, or combination thereof contains boron in an amount of 0.05-5 mass%.
- 12. (previously presented): An electroconductive molded product, which has been obtained by molding an electroconductive resin composition according to claim 1.
- 13. (original): An electroconductive molded product according to claim 12, which has a volume resistivity of 0.1 Ω cm or less, a contact resistance of 0.1 Ω cm² or less, and a penetration resistance of 0.1 Ω cm or less.

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14. (previously presented): An electroconductive molded product according to claim 12, which has a heat conductivity of 1.0 W/m·K or more.

- 15. (previously presented): A fuel cell separator, which has been obtained by using a molded product according to claim 12.
- 16. (original): A fuel cell separator according to claim 15, which has four or more through-holes, has a groove having a thickness of the thinnest portion thereof of 0.1-2 mm, and a depth of 0.1-1.5 mm, and has a volume resistivity of 0.1 Ω cm or less, a contact resistance 0.1 Ω cm² or less, a heat conductivity of 1.0 W/m·K or more, and a gas permeability of 1×10⁻⁶ cm/sec or less.
 - 17. (new): An electroconductive resin composition, comprising at least:

a multi-component polymer-type resin binder (A) comprising a dispersed phase and a continuous phase, and having a number-average particle size of dispersed phase of $0.001-2~\mu m$, and an electroconductive material (B) in the form of powder, fiber, or combination thereof;

wherein the number-average particle size of the dispersed phase in the component (A) is smaller than the number-average particle size or number-average fiber diameter of the component (B),

wherein the multi-component polymer-type resin binder (A) has a micro-phase separation structure comprising a resin component constituting the dispersed phase and a resin component constituting the continuous phase, and

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wherein a ratio (Pa/Pb) of the number-average particle size (Pa) of the dispersed phase of the component (A) and the number-average particle size or the number-average fiber diameter (Pb) of the component (B) is 0.8 or less.

- 18. (new): An electroconductive resin composition according to claim 17, wherein at least one component contained in the component (A) is an elastomer component.
- 19. (new): An electroconductive resin composition according to claim 17, wherein the component (B) comprises at least one kind selected from: metallic materials, carbonaceous materials, electroconductive polymers, and fillers coated with a metallic material, or metallic oxides.
- 20. (new): An electroconductive resin composition according to claim 17, wherein the component (B) is a carbonaceous material including boron in an amount of 0.05-5 mass%.
- 21. (new): An electroconductive resin composition according to claim 17, wherein the component (B) comprises 0.1-50 mass% of vapor-phase grown carbon fiber, carbon nanotube, or combination thereof, based on the mass of the entire component (B) including the vapor-phase grown carbon fiber, carbon nanotube, or combination thereof per se.
- 22. (new): An electroconductive resin composition according to claim 21, wherein the vapor-phase grown carbon fiber, carbon nanotube, or combination thereof contains boron in an amount of 0.05-5 mass%.